Table 1-12
Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
All fields											
Since earning bachelor's	8.2	8.9	9.7	10.5	10.6	10.6	10.3	9.5	9.0	8.8	8.6
Since starting graduate school	6.9	7.7	8.0	8.7	8.7	8.7	8.6	7.9	7.7	7.5	7.2
Since starting doctoral program ^a	na	5.8	5.7								
Life sciences											
Since earning bachelor's	7.0	7.3	7.7	8.9	9.5	9.4	9.0	8.6	8.5	8.3	8.3
Since starting graduate school	6.0	6.2	6.7	7.2	7.9	7.7	7.4	7.0	6.9	6.8	6.8
Since starting doctoral program ^a	na	5.7	5.4								
Agricultural sciences and natural resources											
Since earning bachelor's	8.0	8.3	8.3	9.6	10.4	10.7	10.8	9.4	9.3	8.7	8.
Since starting graduate school	6.4	6.5	6.7	7.5	8.2	8.2	8.7	7.7	7.9	7.4	7.:
Since starting doctoral program ^a	na	5.3	5.0								
Biological and biomedical sciences											
Since earning bachelor's	6.9	7.0	7.3	8.2	8.7	8.5	8.0	8.0	8.0	7.8	7.9
Since starting graduate school	5.9	6.2	6.2	6.9	7.2	7.0	6.7	6.7	6.6	6.5	6.4
Since starting doctoral program ^a	na	5.7	5.								
Health sciences											
Since earning bachelor's	8.5	8.9	10.3	12.3	14.1	14.7	14.2	12.0	11.5	11.0	11.0
Since starting graduate school	6.7	7.4	8.7	9.9	11.7	11.7	11.1	9.6	8.9	8.9	8.
Since starting doctoral program ^a	na	5.6	5.0								
Physical sciences and earth sciences											
Since earning bachelor's	6.5	7.0	6.9	7.2	7.8	7.8	7.5	7.5	7.3	6.9	6.9
Since starting graduate school	5.7	6.2	6.1	6.2	6.7	6.7	6.7	6.5	6.4	6.2	6.
Since starting doctoral program ^a	na	5.7	5.0								
Chemistry											
Since earning bachelor's	6.0	6.3	6.0	6.6	7.1	7.0	6.6	7.0	6.8	6.3	6.3
Since starting graduate school	5.3	5.7	5.3	5.7	6.2	5.9	5.7	6.0	6.0	5.8	5.
Since starting doctoral program ^a	na	5.3	5.3								
Geosciences, atmospheric sciences, and ocean sciences											
Since earning bachelor's	8.0	8.0	8.4	9.1	9.7	10.6	9.8	9.0	8.6	8.0	7.9
Since starting graduate school	6.7	6.8	7.3	7.9	8.2	8.7	8.2	7.4	7.3	6.8	6.8
Since starting doctoral program ^a	na	5.5	5.4								
Physics and astronomy											
Since earning bachelor's	6.9	7.5	7.4	7.5	7.7	7.8	7.8	7.5	7.3	7.0	7.0
Since starting graduate school	6.2	6.7	6.7	6.7	6.7	6.9	6.9	6.7	6.7	6.5	6.3

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Since starting doctoral program ^a	na	5.9	6.0								
Mathematics and computer sciences											
Since earning bachelor's	6.9	7.0	7.3	8.4	9.0	9.2	8.4	8.3	8.0	7.9	7.7
Since starting graduate school	6.0	6.2	6.4	7.1	7.7	7.8	7.3	7.0	7.0	7.0	6.8
Since starting doctoral program ^a	na	5.7	5.6								
Computer and information sciences											
Since earning bachelor's	-	7.4	7.9	9.3	9.3	9.8	9.5	8.8	8.8	8.9	8.3
Since starting graduate school	-	6.7	6.7	7.7	7.7	8.3	8.1	7.4	7.4	7.8	7.0
Since starting doctoral program ^a	na	5.8	5.7								
Mathematics and statistics											
Since earning bachelor's	6.9	7.0	7.2	8.0	8.9	8.7	7.7	7.5	7.2	7.0	7.0
Since starting graduate school	6.0	6.2	6.2	6.9	7.4	7.2	6.7	6.7	6.3	6.3	6.0
Since starting doctoral program ^a	na	5.3	5.3								
Psychology and social sciences											
Since earning bachelor's	7.6	8.1	9.3	10.5	10.9	10.2	10.0	9.7	9.5	9.3	9.5
Since starting graduate school	6.7	6.9	7.7	8.7	8.7	8.2	8.2	8.0	7.7	7.8	7.9
Since starting doctoral program ^a	na	6.0	6.0								
Psychology											
Since earning bachelor's	6.7	7.2	8.6	10.0	10.3	9.3	9.2	8.7	8.4	8.4	8.5
Since starting graduate school	5.9	6.1	7.2	8.2	8.4	7.7	7.7	7.0	6.9	6.9	6.9
Since starting doctoral program ^a	na	5.9	5.9								
Anthropology											
Since earning bachelor's	8.0	9.4	10.5	13.0	12.6	12.6	11.4	12.0	11.2	11.6	11.3
Since starting graduate school	7.2	8.0	9.1	10.7	10.7	10.2	9.7	9.7	9.0	9.7	9.2
Since starting doctoral program ^a	na	7.7	7.5								
Economics											
Since earning bachelor's	7.5	8.0	8.5	9.0	9.3	9.3	9.0	8.3	8.6	8.4	8.9
Since starting graduate school	6.7	6.9	7.2	7.7	7.7	7.5	7.2	7.0	7.0	7.3	7.7
Since starting doctoral program ^a	na	5.8	5.8								
Political science and government											
Since earning bachelor's	8.3	9.3	9.9	11.0	10.6	10.5	11.0	10.3	9.9	9.9	10.0
Since starting graduate school	7.7	8.1	8.7	9.4	9.0	8.9	8.9	8.3	8.3	8.0	8.3
Since starting doctoral program ^a	na	6.3	6.0								
Sociology											
Since earning bachelor's	8.1	9.0	10.3	12.1	12.1	10.9	11.2	11.0	10.6	11.0	10.7

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Since starting graduate school	7.2	7.7	9.2	10.5	10.0	8.9	8.9	9.2	8.7	9.0	9.0
Since starting doctoral program ^a	na	7.0	6.8								
Other social sciences											
Since earning bachelor's	8.9	9.9	11.1	12.0	12.9	12.1	11.9	12.0	11.3	11.5	11.4
Since starting graduate school	7.7	8.5	9.2	9.8	10.2	9.7	9.7	9.8	9.3	9.5	9.3
Since starting doctoral program ^a	na	6.3	6.0								
Engineering											
Since earning bachelor's	7.6	7.5	8.0	8.2	8.9	8.9	8.6	8.0	7.6	7.3	7.5
Since starting graduate school	6.2	6.2	6.7	6.7	7.2	7.2	7.2	6.7	6.7	6.7	6.6
Since starting doctoral program ^a	na	5.3	5.3								
Aerospace, aeronautical, and astronautical engineering											
Since earning bachelor's	8.0	7.6	8.4	8.2	8.5	8.3	7.9	7.9	7.2	7.0	7.1
Since starting graduate school	6.7	6.7	6.9	6.7	7.2	6.7	6.9	7.0	6.6	6.6	6.5
Since starting doctoral program ^a	na	5.3	5.3								
Bioengineering and biomedical engineering											
Since earning bachelor's	7.0	8.0	8.0	7.9	8.5	8.0	7.5	7.2	7.0	6.6	6.8
Since starting graduate school	6.5	6.5	7.7	6.5	6.7	7.2	6.7	6.3	6.2	5.9	6.0
Since starting doctoral program ^a	na	5.3	5.4								
Chemical engineering											
Since earning bachelor's	6.3	6.8	7.0	6.8	7.2	6.8	6.5	6.6	6.6	6.1	6.3
Since starting graduate school	5.5	5.7	5.7	5.7	6.2	5.8	5.7	5.7	5.7	5.5	5.8
Since starting doctoral program ^a	na	5.0	5.1								
Civil engineering											
Since earning bachelor's	8.0	8.5	8.5	9.3	9.4	10.9	9.8	8.7	8.8	8.3	8.3
Since starting graduate school	6.1	6.7	6.7	7.1	7.7	8.5	8.0	7.5	7.7	7.5	7.2
Since starting doctoral program ^a	na	5.3	5.0								
Electrical, electronics, and communications engineering											
Since earning bachelor's	-	-	-	7.9	8.5	8.6	8.6	8.1	7.7	7.8	7.9
Since starting graduate school	-	-	-	6.2	6.7	7.2	7.3	7.1	6.9	7.0	6.9
Since starting doctoral program ^a	na	5.3	5.6								
Industrial and manufacturing engineering											
Since earning bachelor's	8.4	8.9	8.9	10.2	9.9	9.9	10.0	9.1	8.9	8.7	8.7
Since starting graduate school	6.7	6.8	7.2	7.9	7.2	7.7	7.9	7.7	7.7	7.7	7.7
Since starting doctoral program ^a	na	5.0	5.0								
Materials science engineering											

Table 1-12
Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Since earning bachelor's	8.0	7.0	7.8	8.0	8.8	7.9	8.0	7.4	6.8	6.5	6.8
Since starting graduate school	6.5	6.1	6.2	6.4	7.0	6.3	6.7	6.7	6.0	6.0	6.0
Since starting doctoral program ^a	na	5.0	5.3								
Mechanical engineering											
Since earning bachelor's	7.5	7.9	8.3	8.2	9.3	9.3	9.0	7.9	7.5	7.3	7.6
Since starting graduate school	6.3	6.7	6.7	6.7	7.7	7.2	7.6	7.0	6.7	6.7	6.7
Since starting doctoral program ^a	na	5.3	5.3								
Other engineering											
Since earning bachelor's	7.7	7.4	8.0	9.0	9.5	9.9	9.4	8.5	8.2	8.0	8.0
Since starting graduate school	6.5	6.2	6.7	6.9	7.7	7.7	7.7	7.1	7.2	6.9	7.0
Since starting doctoral program ^a	na	5.3	5.3								
Education											
Since earning bachelor's	12.7	12.7	13.7	16.2	19.0	20.0	19.0	16.6	15.0	14.9	15.0
Since starting graduate school	10.0	10.2	11.2	13.5	15.6	15.7	14.1	12.6	11.9	12.0	11.8
Since starting doctoral program ^a	na	6.3	5.5								
Education administration											
Since earning bachelor's	14.2	14.6	15.0	17.9	20.9	22.9	23.0	20.1	18.6	18.0	18.4
Since starting graduate school	11.7	11.7	12.7	15.2	17.6	18.5	16.7	14.7	14.7	14.9	14.7
Since starting doctoral program ^a	na	6.3	5.8								
Education research											
Since earning bachelor's	11.3	11.9	13.2	15.6	18.0	18.3	16.8	15.0	14.0	13.9	14.0
Since starting graduate school	9.1	9.6	10.9	12.9	14.5	13.7	12.7	11.6	11.0	11.3	11.0
Since starting doctoral program ^a	na	6.1	5.6								
Teacher education											
Since earning bachelor's	13.3	12.9	14.7	17.0	19.2	20.4	21.9	15.9	18.2	17.0	17.3
Since starting graduate school	10.5	9.9	11.7	13.3	15.6	16.7	16.2	12.7	13.7	12.8	14.0
Since starting doctoral program ^a	na	6.7	5.7								
Teaching fields											
Since earning bachelor's	12.2	12.3	12.5	14.6	16.9	17.0	15.4	13.9	14.2	14.0	15.0
Since starting graduate school	9.9	10.0	10.2	11.9	13.0	12.7	11.7	10.7	11.2	11.2	11.8
Since starting doctoral program ^a	na	6.0	5.3								
Other education											
Since earning bachelor's	13.3	13.7	14.3	16.1	18.6	18.9	18.8	15.9	15.9	15.3	14.6
Since starting graduate school	10.7	10.8	11.0	12.7	14.9	14.9	13.9	11.8	11.9	12.6	11.7
Since starting doctoral program ^a	na	6.3	5.7								

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Humanities and arts											
Since earning bachelor's	9.0	10.0	11.3	12.2	12.3	12.0	11.7	11.5	11.0	11.0	11.2
Since starting graduate school	7.9	8.9	10.0	10.7	10.5	9.7	9.7	9.7	9.2	9.3	9.7
Since starting doctoral program ^a	na	7.0	6.8								
Foreign languages and literature											
Since earning bachelor's	9.0	10.0	11.5	12.5	11.0	11.0	11.0	11.2	11.0	10.6	10.9
Since starting graduate school	7.9	9.2	10.0	10.7	9.7	9.2	9.2	9.1	8.9	9.0	9.:
Since starting doctoral program ^a	na	6.9	6.8								
History											
Since earning bachelor's	8.9	9.8	11.0	12.2	12.2	11.5	11.8	11.7	11.0	11.0	11.
Since starting graduate school	7.8	8.7	10.1	10.7	10.2	9.7	9.7	9.7	9.2	9.3	9.:
Since starting doctoral program ^a	na	7.0	7.0								
Letters											
Since earning bachelor's	8.9	9.9	11.0	12.1	11.9	11.5	11.2	11.0	10.6	10.7	10.
Since starting graduate school	7.7	8.7	9.7	10.1	9.7	9.2	9.2	9.3	8.7	9.0	9.
Since starting doctoral program ^a	na	7.0	6.								
Other humanities and arts											
Since earning bachelor's	9.9	10.6	11.6	12.2	13.0	12.6	12.7	11.8	11.4	11.3	11.
Since starting graduate school	8.7	9.7	10.2	10.7	11.2	10.7	10.7	9.7	9.7	9.8	9.9
Since starting doctoral program ^a	na	7.3	6.								
Other											
Since earning bachelor's	9.9	10.5	11.5	12.6	13.2	13.4	13.0	12.2	11.5	11.4	11.
Since starting graduate school	7.7	8.7	9.3	9.9	10.7	10.2	10.2	9.4	8.9	9.3	9.
Since starting doctoral program ^a	na	5.8	5.								
Business management and administration			-			-	-		-		
Since earning bachelor's	9.0	9.8	11.0	11.5	12.0	12.6	12.5	11.2	11.2	11.2	10.
Since starting graduate school	7.2	8.0	8.7	8.9	9.7	9.7	9.7	8.9	8.7	8.9	8.
Since starting doctoral program ^a	na	5.0	5.								
Communication											
Since earning bachelor's	9.5	8.9	10.1	12.0	12.5	12.5	11.5	12.0	10.1	11.0	10.
Since starting graduate school	8.1	7.7	8.7	8.9	10.0	9.2	9.2	9.3	8.0	8.6	8.
Since starting doctoral program ^a	na	6.0	5.								
Non-science and engineering fields nec					. 70						0.
Since earning bachelor's	13.6	12.5	13.0	14.9	17.1	16.2	15.5	14.8	13.3	12.6	13.
Since starting graduate school	10.2	10.3	10.7	12.7	13.9	13.3	11.9	11.3	10.9	10.3	11.5

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972-2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Since starting doctoral program ^a	na	6.3	5.7								

- = not calculable. na = not applicable; data were not collected prior to 2014.

nec = not elsewhere classified.

Note(s):

Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):

National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

^a Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.